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HAMILTON

REMARKS ON
ORGAN BUILDING

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REMARKS
ON
ORGAN BUILDING,

AND THE
CAUSES OF DEFECTIVE INSTRUMENTS.

BY
DAVID HAMILTON,
ORGAN-BUILDER TO THE QUEEN.

EDINBURGH :
HAMILTON & MÜLLER,
116, GEORGE STREET.

1851.

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W. E. G.

MR. HAMILTON respectfully solicits the attention of parties interested in the introduction and erection of new Organs in Churches, Chapels, or Public Halls, to the following remarks, and to the advantages which he offers in the careful and skilful construction of these instruments.

To persons conversant with the proper nature, design, and use of the Organ, it is matter of constant regret that the constructing of this instrument is generally regarded as a *Manufacture*, and not as (what in truth it is) an *Art*; and that therefore parties who have to order or to purchase Organs for public use imagine that they sufficiently fulfil their duty by obtaining, through the means of competing estimates, the greatest bulk of handicraft workmanship at the lowest price. To build a properly-constructed Organ is a task that involves both scientific knowledge and artistic acquirement. No doubt, in its structure there is much that is purely mechanical; but, when the instrument comes to be tested by time and use, a wide difference is discovered between the work of a mere mechanic, however skilful, and that which forms the ground-work of the true Organ-Builder's operations. It is only after years of constant labour

and study that an Organ-BUILDER can thoroughly understand and master the difficulties of his art ; and not till then is he able to adapt the delicate system of mechanism to the ever-varying requirements of each different instrument which he constructs, and capable of infusing into his inanimate work that which is its life,—namely, the power of giving forth full, rich, soft, and nicely-balanced tones, which constitutes its value as a musical instrument. An Organ cannot be framed by the same rule as if it were but a complex article of furniture. In an Organ built by the hand of a master, the mechanism will be found to be constructed for the requisites of smoothness of action and great durability ; the tones carefully and perfectly equalized, so that each pipe shall have only its due proportion of power and its proper quality of tone, and the combined effect be rich and full, without harshness or undue predominance in any part. The Organ thus constructed does not, like an inferior instrument, deteriorate with the lapse of years : on the contrary, it consolidates and improves, its tones being mellowed by time ; and the instrument, like a classical painting, not being subject to any mutability of taste or fashion, descends to posterity, a credit both to the builder and to his public-spirited employers, and ultimately acquires a high adventitious value from becoming unique. If properly guarded against casualties, the Church-Organ, like the edifice it occupies, will last for ages. In Germany, Holland, and other parts of the Continent, there are Organs that have existed for centuries, and are as perfect now as when first erected.

Such being the case, it is surely extremely impolitic to make *cheapness* a consideration in treating for the building of an Organ, instead of having one of the finest quality that art and skill can produce, irrespective of present cost ; and the result generally shows parsimony to have been a false economy. The excellence of the instrument depends on the qualifications of the builder—his innate and cultivated taste,—his knowledge of the Theory of Music and Acoustics,—his artistic and mechanical skill,—and, lastly,

though not least in importance, his conscientiousness. Under the practice of adopting the cheapest offer, the person possessing those essential qualifications is necessarily excluded ; for, if he present an estimate of the price for which he can afford to furnish an instrument that shall do credit to his name, and be worth, as a work of art, the money expended on it, he finds some party preferred who has offered to construct it for a much smaller sum, but who has made his calculations as if for a piece of joiner-work, without having an idea of the Science and Art that, beyond mere mechanical contrivance, have their part in Organ-building. It often happens, too, that the party thus preferred profits as much, if not more, than the other would have done, owing to the inferior quality of the materials employed, and to the circumstance that the work, which would have cost a skilful Organ-Builder months of careful study and manipulation, has been thrown together in as many weeks. Or it may be that an unscrupulous party, nowise deficient in abilities, but seeing it useless to contend with the system of competition under which the fair remuneration for his art is denied him, may undertake the work for a low price, and content himself with operating only according to the extent of the scanty payment allowed him. In either case, the Organ, if estimated by the mere cost of materials and workmanship, may be worth the small sum paid for it ; but in the eyes of a judge it will be of small value as a musical instrument. But the purchasers have not yet done with its expense. The orginal price had not admitted of the materials' being so expensively selected as the true nature of the instrument requires, nor would it have recompensed a careful and conscientious builder for the time he must have bestowed, during his operations, in verifying the accuracy and unity of his work, and correcting any imperfections thus discovered. The Organ will consequently be found to have defects which time will render sufficiently apparent, and of which a master can alone discover the causes, though he cannot now remedy them. The mechanism gradually becomes infirm and un-

certain in its action ; the touch, always unpleasant, gets more and more disagreeable ; the wind escapes at many points, frequently causing pipes to speak unbidden ; the harmony of every chord is more or less marred by the sounding of pipes not belonging to the keys that are touched ; the metal pipes, made of a mixture chiefly of lead, soon become distorted by their own weight, and in many cases sink down ; the tones, always uneven and ill balanced, grow worse with years, and the instrument can never be perfectly tuned, far less will it stand in tune. Being originally unsound, a constant expenditure is requisite to keep it in playing order, and, at last, a large sum must be sacrificed to reconstruct it ;—and thus in the end it becomes a very costly instrument, while no amount of expenditure can make it a good one.

Nay more : under the system now deprecated, it sometimes happens that parties having the charge of really fine old Organs, that are occasionally to be found, like priceless gems, in churches in this country, allow these to be repaired, revoiced, tuned up to the modern pitch, or reconstructed with pedal pipes, by persons who engage to do so for little more than a journeyman mechanic's wages, unconscious that what they propose to do should be other than a mechanical operation ; and so, owing to a false idea of economy, the unique productions of a SCHNETZLER or a Father SCHMIDT (which money could not now purchase) are, by the acts of an ignorant pretender, reduced to the value of merely the materials that compose them. It is as if one should advertise for the retouching of some classical picture, and accept the cheapest offer.

Even in the ordinary operation of tuning the Organ, irreparable mischief is frequently done. As the causes of an Organ's becoming out of tune are various, so the operation requisite to restore it to its original state is not always the same. An inexperienced person, however, generally begins at once by widening or contracting the ends of the pipes (because he knows that by this means he can sharpen or flatten them), until he forces the whole into such a state

of tune as he is capable of appreciating; and he ends in leaving the origin of the defect untouched, the pipes distorted and torn, if not actually cut, and the original pitch and temperament of the instrument in many cases completely changed. A few such hap-hazard proceedings, and the pipes become so mangled that they never afterwards keep in tune.

Mr. HAMILTON feels sure that every one of the respectable and talented Organ-Builders in London and the provinces can bear testimony to the justice of the above statement.

The following passage, translated from Wolfram's German treatise on Organ-Building, shows how the system of competition and cheapness is to be condemned; and similar principles are strongly insisted on by Professor Töpfer of Weimar, D. Bedos, M. Hamel, and other well-known writers on the art :—

“ When an extensive repair or improvement is to be made on an Organ, it is advisable to have the instrument inspected by several Organ-Builders, and hear their opinions regarding what should be done. Afterwards, it is not the builder who will do the work cheapest that should be selected (as is too often the case), but he by whom the work is most likely to be best executed, irrespective of price. It should be ascertained that he has a good reputation for knowledge of his art, and that he has already shown his ability. A cheap repair is always a miserable botch, whereby neither the Organ, the Congregation, nor the Organ-Builder, gains credit. He who executes his work properly, to gain honour and bread thereby, should receive every furtherance and encouragement to work, and well deserves a suitable reward, were it even too much rather than too little, for the work will reap the benefit.

“ In building a new Organ, all depends on the person chosen to undertake the work. Everywhere abundance of Organ-Builders are to be found; but the clever artist, the

master of his art, the straightforward, trustworthy man, is not so often to be met with. If such a one is not to be got, then is the congregation, in spite of whatever contracts, penalties, or precautions, far from being certain of obtaining a good Organ."

Mr. HAMILTON originally studied Organ-building in Germany, where he resided for a number of years; and he has now been established in this country for upwards of a quarter of a century. During that period he has maintained an intercourse with the most eminent Organ-Builders of the Continent, occasionally visiting their establishments, and has introduced into the various Organs he has built, many valuable improvements in mechanism, and new stops previously unknown in Britain. He was the first to advocate in this country the building of Organs according to the compass and disposition adhered to on the Continent, and which has now become generally adopted by the first builders in London. Many years ago he discovered a new principle in mechanism, which he applied for relieving the weight of the touch of large instruments. This invention he added to the Organ in St. John's Episcopal Church, Edinburgh, in 1835, and a paper was read at a meeting of the British Association at Birmingham in 1839, explanatory of a Model of it which he then exhibited. He afterwards found this identical invention (in all its details the same as his Model) applied in the grand Organ of the Church of St. Denis, and in that of the Madeleine Church in Paris, under the name of the "Pneumatic Lever," and which he has reason to believe was taken from his model, as its first introduction in Paris was subsequent to the date of the exhibition at Birmingham.

He solicits especial attention to the improvements which he has introduced in the making of metal pipes, and which, at a small additional cost, he makes of pure tin, instead of the mixture, chiefly lead, used by every other builder in Britain. All the metal pipes of the celebrated

Organs in Holland, Germany, &c. are of pure tin,—the advantages of which are,—greater durability, less liability to corrode, keeping longer in tune, and producing a much finer and purer quality of tone.

Mr. HAMILTON is not only a practical Organ-BUILDER, but possesses a thorough knowledge of the purpose and use of the Instrument, and has for eighteen years past held the situation of Organist in St. John's Episcopal Church in Edinburgh. He is thus the more competent to judge of the requisites or defects of an Organ, and either to repair or reconstruct one already built, or to plan and build a new one suitable to requisite circumstances and the locality in which it is to be placed. The voicing and finishing of every organ built by him is entirely executed by himself.

His charges for building or for reconstructing and repairing Organs, whether done under a previous estimate or not, are always on the most moderate scale, consistently with having the work properly executed.

Estimates and specifications, with designs of Fronts, and every relative information, furnished on application.

116 GEORGE STREET, }
EDINBURGH. }

O R G A N S .

TO THE EDITOR OF THE MUSICAL WORLD.

Edinburgh, 14th August 1852.

SIR,—I have read with great interest the remarks in your paper of the 7th, on the new organ built by Messrs. GRAY and DAVISON for Eton College, and the well-merited animadversions on the scale almost universally adopted by British organ-builders. There is one portion, however, of the article, to which I feel called upon in self-defence to reply. You point to the use of pure tin in the construction of the front pipes, and of one interior stop, of the Eton organ, as being “novel in English work, and well worthy attentive consideration,” and express your hope that “it will prove the first step to a general custom.” Permit me to say that this is by no means the first step towards the use of pure tin pipes in this country; and Messrs. GRAY and DAVISON, whose high reputation has been long established, can well afford to dispense with a compliment not justly due to them. The introduction of pure tin pipes is one of the changes in organ-building which I have for many years been endeavouring to effect, in the assurance that an instrument so constructed would eventually be more satisfactory to the possessor, and reflect higher credit on the builder.

It is now nearly sixteen years since I made the first stop of pure tin pipes in this country, and the advantage of such work has now become so well known here, that for eight years past every church organ I have built has had metal pipes of pure tin, and also burnished front pipes, with the description of mouth still in vogue on the Continent.

Among these I may refer to one organ, which I have only lately finished for the private chapel of His Grace the DUKE of BUCCLEUCH, at Dalkeith Park. This instrument is about the same size as the Eton College organ. It has three manuals, from CC to F, with eleven stops on the great organ, six on the choir, and six on the swell, with pedal-keys on the German scale and form, and two octaves of pipes from sixteen feet C open. All the metal pipes in this organ, of which there are no less than 1,116, are made of pure tin. The front pipes, of which there are 70, are polished, and with the fashion of mouth you describe. His Grace's liberality and enlightened ideas allowed me to have my own way, both as to the compass and disposition of the organ, and the material employed. And I feel assured that an inspection and trial of that instrument would induce other organ-builders to join me in forwarding the change I have so long advocated in theory and carried out in practice.

The statement I have thus briefly made will, I trust, convince you that I am entitled to the credit of being the first in Britain to adopt the improvements alluded to; and I feel assured that Messrs. GRAY and DAVISON will be the first to justify me in claiming for myself “honour where honour is due.”

I remain, SIR, your most obedient servant,

DAVID HAMILTON,
Organ-Builder to the Queen for Scotland.





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